

5.4 INSPECTION AND CLEANING THE BATTERY ASSEMBLY AFTER HEAVY USE.

If the Battery Assembly has been subjected to heavy use, inspect and clean as follows:

1. Disconnect the torch and striker leads from the battery assembly.
2. Remove the cover or top half of the case and look for dirt or water.
3. If the unit is wet or dirty, flush with clean, fresh water to remove the dirt. Allow the unit to dry thoroughly.
4. After drying the battery box assembly, reassemble the halves and ignite at least one rod to ensure proper operation.

5.5 RETURNING TO SERVICE

After the complete unit has been cleaned and inspected, reassemble the system and test it. Be sure the oxygen cylinder is full, the charger is functional, and the rods are in place.

Battery Charge

Before placing unit back in service recharge the battery in the battery box assembly. If it is time for rotation of the batteries replace recharged battery with the battery from the spare parts box and charge this battery before placing PECU back in service.

5.6 QUARTERLY INSPECTIONS

Operational Inspection

Your SLICE system should be operated once every three months if it has not been used. This procedure ensures that the battery has maintained its charge and will enable operators to practice cutting.

It is also necessary to replace the battery in the battery assembly with the battery that comes in the spare parts package. Failure to change the batteries at the quarterly inspection will allow the battery in the spare parts package to fail. By switching these batteries quarterly, you can maintain both at acceptable charge levels. Be sure that both batteries are at full charge before storing. Figure 10 shows how to change the batteries.

5.7 U.S. NAVY PLANNED MAINTENANCE REQUIREMENTS (PMS)

The above maintenance requirements apply until planned maintenance system (PMS) requirements are received.

VI DISASSEMBLY, REPAIR, REPLACEMENT, AND RE-ASSEMBLY

It will be necessary to disassemble components from time to time for repairing or replacing parts. This section will show you how to do the disassembly and re-assembly on those components that should be changed in the field. Some components, such as the torch body, oxygen valve, regulator and oxygen hoses should not be repaired by field personnel. These should be replaced only and the damaged parts sent to a qualified oxygen components repair center.

6.1 REPAIRING THE STRIKER (FIGURE 8)

All of the parts that make up the striker assembly can be replaced or repaired in the field.

1. Disconnect the striker from the battery assembly.
2. To disassemble the striker remove the screws (items 8 and 9) that hold the handle halves (items 1 and 2) together. If the handle halves are the parts being replaced, get the new parts and reassemble.
3. If the striker plate (item 3) or the cable (item 4) need replaced, remove the nut and bolt (item 5 and 7) get the new part and reassemble the striker plate and cable. Then reassemble the handle halves.

See the parts lists at the back of this manual for the proper numbers to get replacement parts. Anytime parts are taken out of the spare parts package they should be replaced as soon as possible.

FIGURE 8: REPAIRING THE STRIKER

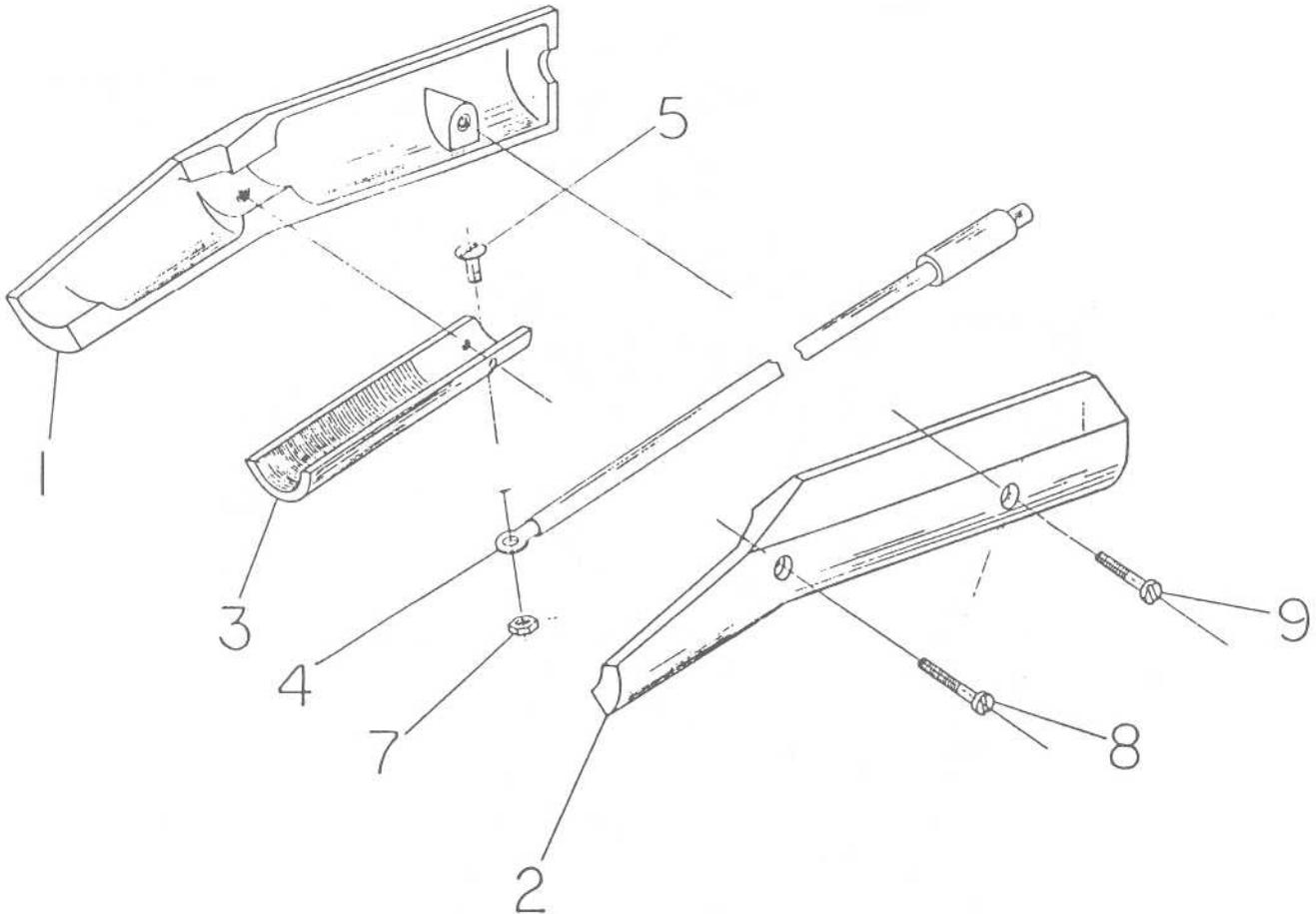
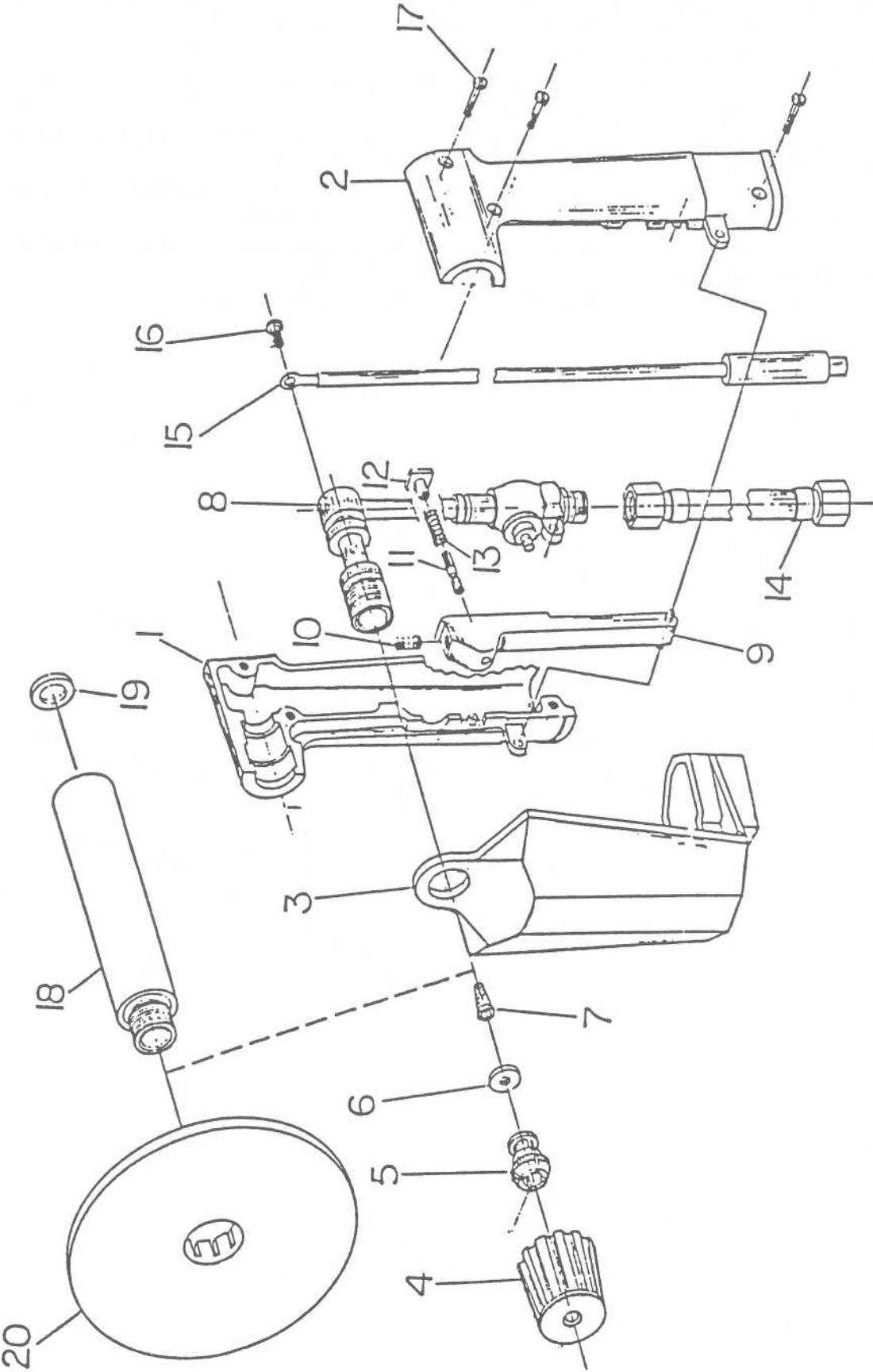


FIGURE 9: REPAIRING THE TORCH



6.2 REPAIRING THE TORCH (FIGURE 9)

Only those parts of the torch mentioned in this section should be replaced or repaired in the field.

CAUTION



If the head assembly (item 8) is damaged or worn replace the complete assembly; do not attempt to replace or repair the oxygen valve or any other component of the head assembly. Send it to an authorized oxygen repair center.

1. Disconnect the torch from the battery and the oxygen cylinder.
2. To replace the collet nut assembly (item 4) simply unscrew it and replace.
3. To replace the collet chuck (item 5), remove the collet nut (item 4), pull out the collet chuck, replace it and put the collet nut back on the torch.
4. To replace the washer (item 6) remove the collet nut (item 4) and pull out the collet chuck (item 5). Turn the torch and *lightly* tap on a hard surface to remove the washer. If this does not work use a small wire (straightened paper clip) to pull out the washer. Replace the washer, put the collet chuck and collet nut back on the torch.
5. To replace the spark arrestor (item 7) remove the collet nut (item 4) and pull out the collet chuck (item 5). Turn the torch and *lightly* tap on a hard surface to remove the washer. If this does not work use a small wire (straightened paper clip) to pull out the washer. *Lightly* tap on a hard surface to remove the spark arrestor. If this does not work use a small wire (straighten paper clip) to pull the spark arrestor out. Replace the spark arrestor and washer, replace the collet chuck and collet nut.
6. To replace the shield (item 3) remove the extension assembly (item 18) and all parts in front of it by unscrewing the extension assembly. Slide the top of the shield over the threads, pull the bottom off the handle and slide the shield down and over the oxygen hose and power cable. Put the new shield on by reversing the procedure.

NOTICE



To make shield replacement easier preheat shield using heat gun, heat lamp or similar heat source 30 seconds to 1 minute prior to slipping new shield on torch.

7. To replace the handle (items 1 & 2) follow step 6. In addition, remove three screws (item 17) and separate the halves. When the halves are separated items 9, 11, 12, and 13 will be loose. Be sure you don't lose these parts. Get the new handle halves, and reverse the procedure being sure to replace items 9, 11, 12, and 13 properly.
8. To replace the oxygen hose assembly (item 14) follow steps 6 and 7. In addition, unscrew the oxygen hose from the head assembly. Get the new hose, and reverse the procedure.

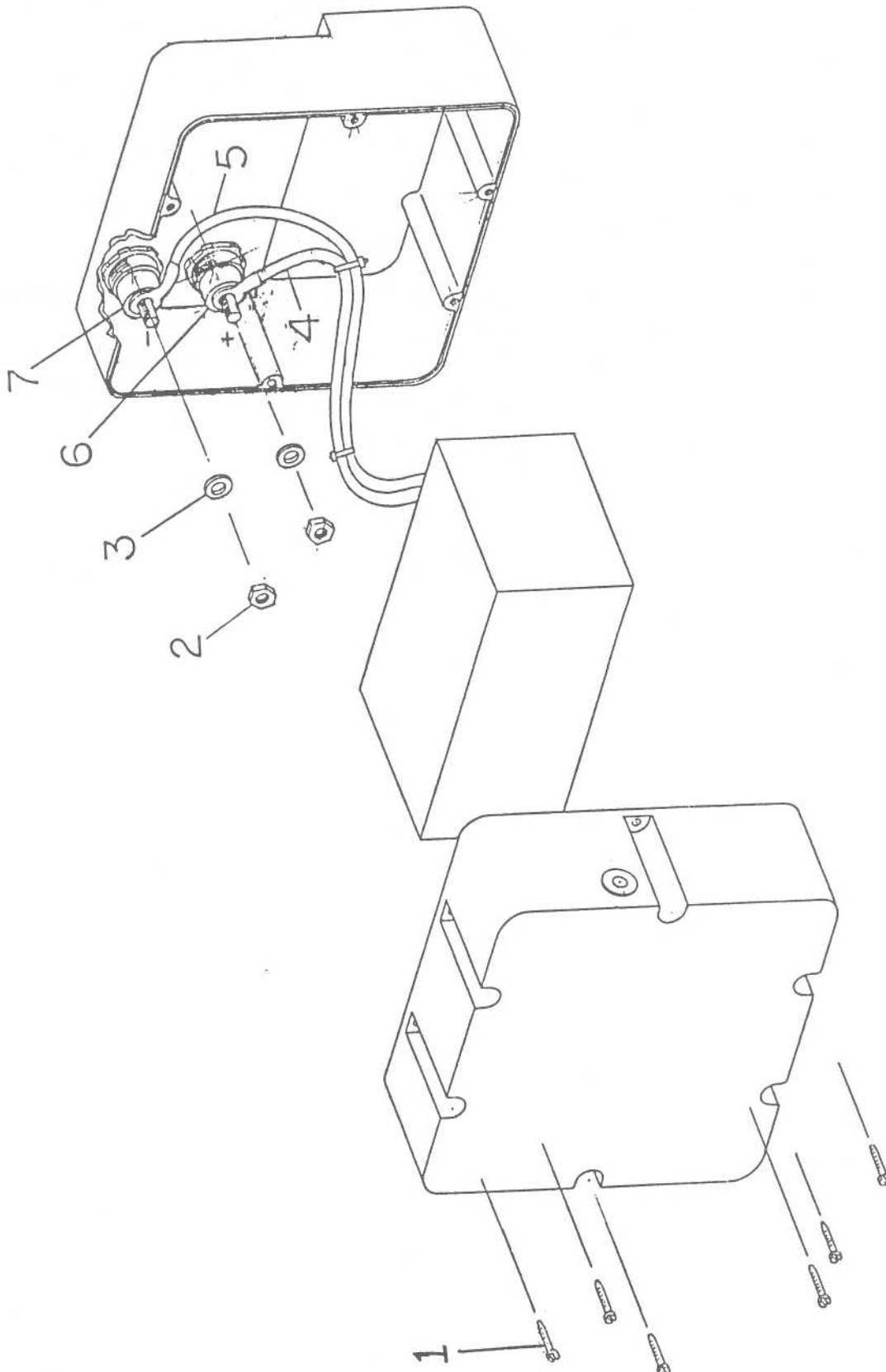
WARNING



Do not repair worn or damaged oxygen hose assemblies (item 14). Replace only.

9. To replace the cable assembly (item 15) follow steps 6 and 7. In addition, remove screw (item 16). Get the new cable, and reverse the procedure.
 10. To replace the lever assembly (item 9) follow steps 6 and 7. Remove the ball plunger (item 10) from the old lever. Get the new lever, install the ball plunger, insert items 11, 12, and 13 and reverse the disassembly procedure.
 11. To replace the adjuster stem (item 11), adjuster nut, and spring see step 7.
- See parts lists at the back of this manual for catalog numbers for parts reorder.

FIGURE 10: REPLACING THE BATTERY



6.3 REPLACING THE BATTERY IN THE BATTERY PACK ASSEMBLY

The Battery Pack Assembly is protected to help prevent damage from moisture. Do not repair or replace any parts but the battery contained in the Battery Pack. Return to a qualified electrical repair center or electrician for any other work necessary. Improper repair will ruin the water protection of this unit.

It is also necessary to replace the battery in the battery assembly with the battery that comes in the spare parts package. Failure to change the batteries at the quarterly inspection will allow the battery in the spare parts package to fail. By switching these batteries quarterly, you can maintain both at acceptable charge levels. Be sure that both batteries are at full charge before storing. Figure 10 shows how to change the batteries.

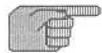
1. Charge the PECU Battery Pack Assembly before changing the batteries.

2. To replace the battery in this unit remove the six screws (item 1) that hold the two sides of the case together. Separate the two halves and lift out the battery.

3. Remove the nut and washer (items 2 and 3) from the female connectors (items 6 and 7).

4. Lift off the connector wires (items 4 and 5) from the battery and remove the battery. Get the battery from the spare parts kit.

CAUTION



Do not allow the leads (items 4 and 5) on the batteries to touch at any time during removal or installation of the battery assembly. This could cause arcing and loss of charge on the battery.

5. Remove the protective cover from the battery taken from the spare parts kit and place it on the battery you just removed from the PECU. Place this battery in the spare parts kit.

6. Take the battery from the spare parts kit and place it in the PECU Battery Pack Assembly by placing the positive lead (item 4) onto the lower female connector (item 6). Place the negative lead (item 5) on the top female connector (item 7).

7. Reverse step 1 through 3 to reassemble the Battery Pack Assembly.

8. Seal the connector terminals (6 & 7), wire lugs, etc. with Urethane Spar Varnish or similar protective coating.

9. Charge this system before placing in the storage locker.

See the parts lists at the back of this manual for part numbers for reorder of the parts.

VII TROUBLE SHOOTING

PROBLEM	REASON
ROD BURNS BUT NO CUT PROGRESSION	TOO MUCH GAP BETWEEN THE BURNING ROD AND THE WORKPIECE. MAINTAIN SLIGHT PRESSURE AGAINST THE WORK. TRAVEL SPEED TOO SLOW OXYGEN PRESSURE TOO LOW
MOLTEN MATERIAL NOT BEING BLOWN OUT OF THE CUT AREA.	OXYGEN PRESSURE TOO LOW RUBBER WASHER BEHIND THE COLLET AND/OR COLLET CHUCK NEEDS REPLACEMENT TRAVEL SPEED TOO FAST
BATTERY WILL ONLY START A FEW RODS BEFORE BEING DEPLETED	BATTERY EXPOSED TO SUB-FREEZING WEATHER BATTERY NEEDS REPLACEMENT BATTERY NOT BEING RECHARGED PROPERLY. (SEE SECTION 4.1.1)
TORCH SHIELD BURNING OFF AT THE COLLET NUT	ROD NOT SEATED PROPERLY IN THE TORCH COLLET EXTENSION (<i>and shield</i>) NOT USED WHEN PIERCING HOLES.
OXYGEN LEAKING AROUND COLLET NUT	ROD NOT SEATED PROPERLY IN TORCH RUBBER WASHER BEHIND THE COLLET AND/OR COLLET CHUCK NEEDS REPLACEMENT
WHEN PIERCING ANYTHING BUT COPPER AND ITS ALLOYS, THE ROD CONSUMES TOO FAST.	PIERCING WITH AN ELECTRICAL ARC. WORK SHOULD BE DONE WITHOUT AN ELECTRICAL ARC.
ARCED COLLET OR COLLET CHUCK AND/OR ROD BURNED OFF AT THE COLLET CHUCK	USING A CONSTANT VOLTAGE (CP) POWER SUP- PLY. USE CONSTANT CURRENT ONLY

VIII PREPARATION FOR RE-SHIPMENT

8.1 GENERAL SHIPPING REQUIREMENTS

Prepare the PECU for shipping by removing oxygen cylinder(s) and stowing other components in the proper compartments. Be sure that all braces, doors and guards are in place before packaging. The original shipping container would be the best way to ship the unit. If the original shipping container has not been kept, pack the unit in a heavy duty cardboard or wooden container and foam all sides of the package.

IX STORAGE

As with any fine tool, SLICE equipment should be stored properly when not in use.

****NEVER LEAVE A CUTTING ROD IN THE COLLET DURING STORAGE****

The SLICE Fleet Pack PECU is supplied with four containers. The Fleet Pack carrying case, the auxiliary carrying case, the Spare parts case, and the 3/8" diameter rod package. These cases are supplied to provide portability, but they are also to be used for storage. Before placing the PECU into storage be sure to clean and dry all components. Do not place a wet or dirty unit into the damage control locker, or other storage areas. (See Section 5 for proper cleaning and maintenance instructions. The PECU should be stored in a clean, dry area. The rust inhibiting paper supplied in the 3/8" rod container should remain in the container until all the rods are used. Tape the open end with duct tape or masking tape for storage.

For long term storage, use a clean, covered container. Do not expose the units to chemicals, water, grease, oil, or excess heat. Always wipe the torch clean prior to storage. (Use a clean, dry cloth). Slightly loosen the collet nut before storing the torch to prevent damage to the internal washer.

